AMENDMENTS TO THE DRAWINGS

Submitted herewith are 21 sheets of formal drawings including Figs. 1-21, labeled Replacement Sheets, which are to replace the original 21 sheets of drawings including Figs. 1-21. Entry of these replacement drawings is respectfully requested.

REMARKS

By this amendment, claims 19-31 are added and claims 7 and 16 are amended to be in independent form. As a result, claims 1, 7, 8, 9, 16 and 18 are independent claims. Applicants submit herewith the fee for the consideration of 11 extra total claims and two extra independent claims over the 20 total and four independent claims for which examination fees have been previously paid. Moreover, this paper is timely filed as it is submitted with a certificate of mailing under 37 C.F.R. §1.8, a petition for a one-month extension of time, and a check for the required petition fee under 37 C.F.R. §1.17(a)(1) thereby extending the response date to December 24, 2006.

I. OBJECTIONS TO THE ABSTRACT AND DRAWINGS

Applicants respectfully traverse the objections to the abstract and the drawings. Applicants have amended the abstract to be less than 150 words. Applicants also include herewith a set of replacement drawings which have been formalized to overcome the deficiencies noted by in the Notice of Draftsperson's Patent Drawing Review attached to the action dated December 24, 2002. Withdrawal of the objections to the abstract and the drawings is hereby respectfully requested.

II. REJECTIONS UNDER 35 U.S.C. §101

Applicants respectfully traverse the rejections of claims 8-17 as being directed to non-statutory subject matter. These claims have been amended to recite specific structure in the form of a user interface system having a computer processor. As a result, these claims are now clearly drawn to patentable subject matter under 35 U.S.C. §101. Applicants therefore respectfully request reconsideration and withdrawal of these rejections.

III. REJECTIONS UNDER 35 U.S.C. §103

Applicants respectfully traverse the rejections of claims 1-6, 8, 12-15 and 18 as obvious over Rosenof ("Data Logging and Reporting for Effective Batch Control"). Reconsideration and withdrawal of these rejections are respectfully requested in light of the remarks provided below. In response to the Examiner's comments in the Office Action, each of these claims is amended to more clearly indicate that the recited system automatically derives relationships among portions of process event information and batch subprocedure event information to thereby associate particular

process event information with one or more particular batch subprocedures. Thus, the recited system now clearly indicates that it derives relationships between process event information and batch subprocedure information to establish a particular batch subprocedure with which a particular process event is associated.

As recognized by the examiner, Rosenof does not disclose a system that associates process event information (e.g., device alarms, device alerts, etc.) with particular batch subprocedures, such as phases, etc. of a batch run. Instead, at best, the Rosenof system is limited to collecting process event information (to the extent the Rosenof system performs this step at all) on a batch by batch basis and storing the process event information for a particular batch in a single file that is separate from a file in which batch procedure event information is located. While these files may be printed out separately, at no point does Rosenof describe or suggest establishing relationships between batch procedure information and process event information stored within separate files. Thus, Rosenof cannot suggest deriving relationships between process event information and batch subprocedure event information "to thereby associate particular process event information with one or more particular batch subprocedures" as is recited by each of claims 1-6, 8, 12-15 and 18.

Generally speaking, each of claims 1-6, 8, 12-15 and 18 recites an event historian, a batch history view application or a batch history viewer that is used in a batch process to collect (1) process event information comprising batch process data related to the operation of the process equipment within a process plant (e.g., the valves, tanks, etc. that are actually performing the batch process) and (2) batch procedure event information, including batch subprocedure event information, from a batch control device (e.g., the process controller that controls the process equipment to perform the batch process). Importantly, the recited event historian or the viewing device derives relationships between the batch procedure event information (including one or more batch subprocedures which make up a batch procedure) and the process event information to thereby be able to display the batch process data in a manner that illustrates how the batch process data (e.g., device alarms, measurements, etc.) relate to the particular batch subprocedures being performed (such as which batch subprocedure was being performed when a particular device alarm arose). In this manner, a user may view or be able to easily determine what batch subprocedure was taking place when a particular piece of process equipment failed, sent an alarm or

other notification, experienced a particular process condition, etc. This ability to view the batch process data (e.g., process equipment alerts and alarms) in a manner that is coordinated with or that identifies the batch subprocedure being implemented by the controller on the equipment at the time, aids operators and other users to better diagnose problems or to better understand the operation of the batch process.

Rosenof simply fails to disclose or suggest deriving relationships between batch subprocedure event information collected from a batch process controller and process event information collected from various process devices implementing the batch process, such as valves, sensors, etc. As a result, Rosenof fails to render any of claims 1-6, 8, 12-15 or 18 obvious. In particular, the examiner indicates that it would have been obvious to one of ordinary skill in the art to recognize "that the claimed limitation only mentioned that the batch procedure event information includes batch sub-procedure event information" and that, therefore, "one of the scenarios the batch procedure event information could be batch sub-procedure event information itself." See, Office Action dated August 24, 2006, paragraph 11, pgs 4-5. Even if this statement is assumed to be true, claims 1-6, 8, 12-15 and 18 now specifically indicate that the recited system derives relationships between process event information and batch subprocedures to thereby associate particular process event information with one or more particular batch subprocedures. As will be recognized, Rosenof does not, in any way, suggest that it is desirable or even possible to associate process event data with particular batch subprocedures. As a result, there is no suggestion or motivation within Rosenof to change Rosenof to be a system, like the claimed system, that associates particular process event data with particular batch subprocedures.

Furthermore, Applicants submit that the Examiner has not established how Rosenof stores process event data in the first place, nor how process event data is associated with batch procedure data in any manner. First of all, it is not clear that Rosenof discloses storing process event data in any separate log file. While Rosenof clearly collects data from the batch process, Rosenof does not specifically say it collects or stores process event data. However, even assuming that the Rosenof system collects and store process event data from various process control devices, the Examiner has still failed to show how, in any manner, Rosenof "automatically derives relationships among portions of said process event information and batch procedure event information." While the Examiner points to Figs. 5 and 6 and states that "an

event log signals various stages of the process which are then displayed graphically to a user in a relation to the ideal 'scheduled' performance" (see Office Action dated August 24, 2006, paragraph 10, pages 3-4), the Examiner does not explain how this statement amounts to associating process event information, such as data collected from individual process devices like field devices, with batch procedure event information, such as information regarding the various phases within a batch. In particular, as explained previously, Fig. 5 discloses an event log that stores particular batch procedure events, such as the start of the batch, the adding of the reactant, the taking of the temperature, all of which are events specified by a recipe that the batch controller is implementing. Thus, at best, Fig. 5, shows a log of batch procedural event information. The Examiner does not explain how Fig. 5 (or Fig. 6 which is a graph of the data in Fig. 5) in any way includes process event information, nor how either Fig. 5 or Fig. 6 illustrates a relationship between process event information and batch procedure event information. Put another way, the Examiner has failed to described or in any way indicate the particular data shown in Fig. 5 or Fig. 6 that the Examiner is considering to be "process event information," nor what data the Examiner is considering to be "batch procedure event information" or any manner in which any relationship between these different kinds of data is developed or displayed in Fig. 5 or 6.

Thus, while Rosenof appears to disclose the use of a data logging file to collect and store batch procedure event data from a batch control device (which data is indicative of milestones or dividing points defining the batch procedures) and possibly the use of other data logging files to collect process event data, such as alarms, measurements, etc. generated by, for example, field devices used to implement the batch process, Rosenof does not disclose or suggest deriving relationships between the collected batch procedure event information and the collected process event information in any manner, much less to "associate particular process event information with one or more particular batch subprocedures." Instead, Rosenof is similar to the prior art referred to in the "Discussion of Related Art" section of the application, in that Rosenof merely collects the different types of data (i.e., the batch procedure event information and the batch process event information) in different files without trying to associate these various different types of data with one another in order to provide for operator ease in determining, for example, the

batch subprocedure that was being implemented by the process controller when a particular process event (such as a device alarm) occurred within one of the physical devices being used to implement the batch procedure.

Moreover, as indicated above, neither Fig. 5 nor Fig. 6 of Rosenof illustrates a relationship between these different types of data, as these figures only illustrate one of these types of data, i.e., batch procedure event information. The data log of Fig. 5 does not include any actual process event information, such as device alarms generated by process devices (e.g., valves, sensors, etc.) or any data collected by such devices. Put another way, the data file of Fig. 5 of Rosenof merely stores data indicating the times associated with "milestone" events of the batch procedure (see Rosenof, page 32, column 2, lines 9-12), which is simply another way of defining a specific part of a particular batch procedure. Thus, the data stored in the file of Fig. 5 and illustrated in Fig. 6 of Rosenof relates only to batch procedure event information, not to process event information, which is data collected from or sent from the devices actually implementing the various phases of the batch procedure.

Because Rosenof does not derive or illustrate relationships between batch procedure event information and process event information, the reports illustrated in Figs. 4-6 of Rosenof do not enable a user to see or easily determine relationships between batch procedure event information (e.g., data indicative of what portion or part of the batch is being implemented) and process event information (e.g., data indicative of specific measurements or alarms generated by devices implementing the batch procedure). Thus, as is the case with other prior art tools discussed in the application, the Rosenof system still requires an operator to manually derive relationships between the collected process event data and the collected batch procedure event data.

It is clear that the prior art must make a suggestion of or provide an incentive for a claimed combination of elements to establish a *prima facie* case of obviousness. See, *In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2d 1443, 1446 (Fed. Cir. 1992); *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. 1985). Rosenof simply fails to provide any suggestion of or motivation for determining relationships between process event information and batch procedure event information, such as that of Figs. 5 and 6 of Rosenof, much less for displaying process event information in the same display as batch procedure event information. In fact, it is not clear how process

event information could be shown in the display of Fig. 6 of Rosenof. Because Rosenof fails to suggest or provide any manner of determining relationships between process event information and batch subprocedure event information, it follows that Rosenof does not render any of claims 1-6, 8, 12-15 or 18 obvious.

Applicant's Interview Summary

On August 4, 2006, Applicants' attorney, Roger A. Heppermann, conducted a telephonic interview with Examiner Jennifer N. To during which the above-identified application was discussed. During this interview, Rosenof was discussed in detail. However, contrary to the Examiner's indication, Applicants did not agree with the Examiner that Rosenof teaches to automatically derive a relationship among batches or at least among portions of process event information and batch procedure event information based on generated event messages. To the contrary, Applicants indicated that, to the extent that Rosenof discloses the collection of process event information at all, it is limited to associating that process event information with a particular batch at a batch level. However, Applicants agreed to amend claim 8 to include specific structure in order to be clearly drawn to patentable subject matter under 35 U.S.C. § 101. The Applicants wish to thank Examiner To for her time during the interview.

IV. CONCLUSION

For the foregoing reasons, Applicants submit that this application is in condition for allowance. Reconsideration and withdrawal of the rejections and allowance of the rejected claims are therefore respectfully requested. If there are any additional fees or refunds required, the Commissioner is hereby authorized to charge or credit Deposit Account No. 13-2855 (under order number 06005/36359) from which the undersigned attorney is authorized to draw.

Respectfully submitted,

December 22, 2006 By: _____

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